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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/061,773	02/01/2002	Cui Bao Tai	32008-pa	3821

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EXAMINER

TOOMER, CEPHIA D

ART UNIT

PAPER NUMBER

1714

DATE MAILED: 02/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/061,773

Applicant(s)

TAI ET AL.

Examiner

Cephia D. Toomer

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— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2-10, 12-30, 32, 34, 35, 37-39 and 41-43 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 35 is/are allowed.
- 6) ☒ Claim(s) 2-10, 12-30, 32, 34, 37-39 and 41-43 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 12, 2004 has been entered.

This Office action is in response to the amendment filed November 15, 2004 in which claims 2-7, 23 and 27.

The previous rejection of the claims under 35 USC 112, first paragraph is withdrawn in view of Applicant's amendment.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 2-7 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. There is no support in the original filed specification for the accelerant formed as a slurry.

***Claim Rejections - 35 USC § 103***

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
5. Claims 8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over CN 1196382 for the reasons of record.
6. Applicant's arguments filed have been fully considered but they are not persuasive.

Applicant argues that claims 8 and 10 require that the accelerant comprise sodium nitrate, calcium nitrate and potassium nitrate whereas the prior art fails to teach this combination and merely mentions calcium nitrate and does not state that the compound may not function as an accelerant in charcoal.

Claim 8 is not limited to any particular carbonaceous material. Furthermore, Glazkova clearly recognized that calcium nitrate possessed some oxidant properties otherwise it would not have been included in his list of thermal decomposition catalysts.

7. Claims 27-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Christian (US 4,243,393) for the reasons of record.

Applicant argues that claims 27 and 28 require a carbonaceous material having an accelerant-containing portion and that the wax does not function as an accelerant simply because it burns.

The wax does hasten the burning of the fuel article and penetrates the base layer. Christian teaches that the wax facilitates burning of the fuel article. This teaching

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suggests that in the absence of the wax the fuel article burns more slowly.

Furthermore, applicant's claims are not limited to any specific accelerant.

Applicant argues that claims 29 and 30 require an accelerant-containing portion of the carbonaceous material and zones of designated accelerated heating.

Christian does teach zones of accelerated heating. See col. 5, lines 13-16. He teaches that the holes and slots allow air to permeate the article to provide a good supply of O<sub>2</sub> containing air to produce a flame.

8. Claims 2, 4, 5, 8, 10, 12, 32, 34, 39 and 41-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over GB 2,306,502.

Applicant argues that claim 2 requires pressing the monolith of carbonaceous material a second time. Applicant argues that GB fails to teach this second pressing. Applicant argues that GB does not teach that the accelerant is formed as a slurry.

GB teaches that the briquettes may be layered with an igniting layer containing the oxidizer (see abstract). GB does teach that a special mold is used to prepare the briquette and since he teaches that the briquettes comprise two distinct layers (see page 9), this teaching suggest that the briquette is prepared in a method similar to that of the present claims. Furthermore, there would have to be a second pressing step in order to adhere the accelerant to the main body of the briquette.

With respect to GB not teaching that the accelerant is formed as a slurry, GB teaches that the raw materials are mixed with water. This teaching suggests a slurry.

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Applicant argues that claims 4 and 5 specify that the accelerant layer...permeates a limited extent into said carbonaceous material. Applicant argues that GB does not teach this limitation.

Clearly the accelerant layer permeates a limited extent of the carbonaceous material given that GB teaches that the accelerant layer is applied to the carbonaceous material layer in an aqueous mixture and is then dried.

Applicant argues that that GB does not teach an embodiment wherein all three nitrates are present.

As set forth in the prior office action, GB teaches that one or more of the nitrates may be used in the composition and he exemplifies Na, K and Ca nitrates. It is prima facie obvious to combine two components each of which is taught by the prior art to be useful for the same purpose, in order to form a third component to be used for the very same purpose. The idea of combining them flows logically from their having been individually taught in the prior art. *In re Kerkhoven* 205 USPQ 1069 (CCPA 1980).

Applicant argues that GB teaches compositions in which the body portion contains anthracite and other compositions in which the accelerant portion contains anthracite, but no composition having two sections in which both sections contain anthracite.

It is clear that GB suggests that both the accelerant and body portions may contain anthracite since he teaches in the examples that each portion may contain anthracite. From these teachings the skilled artisan recognizes that a briquette may be

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prepared wherein the accelerant layer contains anthracite and the body of the briquette contains anthracite.

Applicant argues that GB does not teach that 5-15 % of the accelerant material is present in the briquette material. Applicant argues that the combination of elements in the present invention produces unexpected results.

The GB patent specifically teaches that the accelerant layer comprises 15-30% of the briquette. In the case where the claimed ranges overlap or lie inside ranges disclosed by the prior art a prima facie case of obviousness exists. In re Wertheim, 191 USPQ 90 (CCPA 1976). Applicant has not shown unexpected results with the claimed ranged of proportions.

9. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over GB 2,306,502 in view of Young (US 4,822,380).

Applicant argues that claim 6 requires several steps including the two pressing steps. Applicant argues that GB fails to teach this second pressing step.

GB teaches that the briquettes may be layered with an igniting layer containing the oxidizer (see abstract). GB does teach that a special mold is used to prepare the briquette and since he teaches that the briquettes comprise two distinct layers (see page 9), this teaching suggest that the briquette is prepared in a method similar to that of the present claims. Furthermore, there would have to be a second pressing step in order to adhere the accelerant to the main body of the briquette.

Applicant argues that Young does not teach a removable cover for the briquette.

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Applicant's claim merely recite that the coal remains encased in the covering until use. Once heat is applied to the briquette containing the latex cover, the cover heats up and melts. Thus, remaining in place until use.

10. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over GB 2,306,502 in view of Young (US 4,822,380) and Avedikian (USP 3,934,986).

Applicant argues that claim 7 requires and GB does not teach the second pressing step and that the covering is removed before use.

GB teaches that the briquettes may be layered with an igniting layer containing the oxidizer (see abstract). GB does teach that a special mold is used to prepare the briquette and since he teaches that the briquettes comprise two distinct layers (see page 9), this teaching suggest that the briquette is prepared in a method similar to that of the present claims. Furthermore, there would have to be a second pressing step in order to adhere the accelerant to the main body of the briquette.

Applicant's claim merely recite that the coal remains encased in the covering until use. Once heat is applied to the briquette containing the latex cover, the cover heats up and melts. Thus, remaining in place until use.

Applicant argues that Avedikian only teaches the presence of fusing means through the holes and that placement of the fusing mean elsewhere is not contemplated.

Avedikian is relied upon for teaching that it is conventional to attach a fuse to a briquette. The skilled artisan would recognize that the placement of the fuse on the



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accelerant layer would be most advantageous because it would allow easier ignition of the briquette.

11. Claims 3,9,13-26 and 37-38 rejected under 35 U.S.C. 103(a) as being unpatentable over GB 2,306,502 in view of Avedikian (US 3,934,986).

Applicant argues that Avedikian does not have the wick in the same position as recited in the claims, nor that the prior art teaches the importance of the position of the apertures.

Avedikian states that the wick passes through the holes in the briquette (see col. 5, lines 54-64). Avedikian is relied upon for teaching that it is conventional to attach a fuse to a briquette. The skilled artisan would recognize that the placement of the fuse on the accelerant layer would be most advantageous because it would allow easier ignition of the briquette. Furthermore, it is not inventive to rearrange components of a known article since switching the position of the fuse would not modify the operation of the briquette. The briquette is still a briquette that has a fuse for lighting the material.

Applicant argues that since the limitations of claim 13 are not met then the limitations of the dependent claims are also not met.

Since Applicant's arguments are similar in nature to those previously addressed by the examiner (proportions, combination of accelerants and venting means), the examiner will not repeat her responses but direct Applicant to the arguments supra.

Applicant argues that the prior art fails to teach the shape of the briquette and that the choice of the shape is not an arbitrary choice.

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The courts have held that the configuration of a known article is a matter of choice that a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular configuration of the article was significant. Applicant has not shown that unexpected results are obtained by modifying the shape of the briquette.

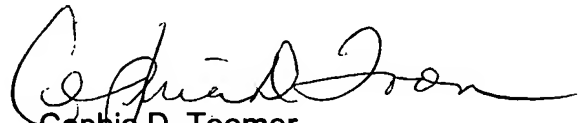
12. Claim 35 is allowable because the prior art fails to teach or suggest the claimed proportions for the core and accelerant.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cephia D. Toomer whose telephone number is 571-272-1126. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Cephia D. Toomer  
Primary Examiner  
Art Unit 1714

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